



UNITED STATES PATENT AND TRADEMARK OFFICE

87

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,829	11/24/2003	Kevin D. Horner-Richardson	9858-000100/COB	3962
28997	7590	08/23/2006		
HARNESS, DICKEY, & PIERCE, P.L.C 7700 BONHOMME, STE 400 ST. LOUIS, MO 63105				
			EXAMINER PASCHALL, MARK H	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,829

Applicant(s)

HORNER-RICHARDSON ET AL.

Examiner

Mark H. Paschall

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enyedy 5,938,949 in view of Hill 3,061,709. Enyedy et al teach the claimed subject matter except for showing a gas controller located within the handle of the torch. The patent to Hill is applied for teaching use of by-pass member 15, which slides and engages and disengages gas valve 28,38 to control the local gas pressure in the torch

Art Unit: 3742

head. Note that gas shielded arc torches do use non-consumable electrodes and do create a plasma discharge, as claimed. In view of Hill teaching that local control of the gas flow via a valve in the torch handle/head as conventional, one of ordinary skill in arc torches would have been motivated to adapt the torch handle head of Enyedy et al with a local gas control device, to effect a local control of the gas flow proximate the torch head. As per claim 8 note that reduction of start time would inherently occur in the Hill system and the Enyedy et al system as modified.

Allowable Subject Matter

Claims 1-3 allowed.

The following is a statement of reasons for the indication of allowable subject matter: claims 1-3 are allowable for teaching use of a solenoid in the torch handle, a feature not set forth in the prior art of record.

Response to Arguments

Applicant's arguments filed 12 June 2006 have been fully considered but they are not persuasive. Applicant's remarks, on page 6, state, "Hill disclosed a compact gas valve in the handle of a welding torch, merely for the purpose of turning on and shutting off the flow of shielding gas." The Hill patent discloses a welding head, also set forth in claim 5. Claim 5 also discloses "a gas control valve disposed in the torch handle". Note that the torch head is disclosed as located in the torch handle, see instant disclosure and see claim 3, for instance. Applicant's own disclosure in paragraph 0021 sets forth

Art Unit: 3742

that the gas control valve can be located in the torch handle and other locations in the torch head, still falling with the scope of the invention. Paragraphs 0026 and 0028 in Applicant's own disclosure state that the gas control device can comprise a valve, as clearly defined in the Hill patent. Since the valve, a gas control device, is located in the torch head, and not connected to the torch head through a gas supply line, as conventional torches are, it is inherent that the gas pressure is built up local to the torch head, and not remotely. Claims 1-3 have been allowed for further defining that the gas control device comprises a solenoid, not taught in the prior art of record. However, the broad recitation of a gas control device clearly is met by use of a gas control valve, the valve comprising the device. It is not see how the gas pressure cannot be built up local to the torch head/handle. The Examiner submits that local buildup of gas pressure and hence reduction of restart times for the torch are inherently taught in the Hill device, in addition to ease of use by the operator. For these reasons, one of ordinary skill in torch control would find placement of the final gas control device in a torch handle/head, depicted as conventional torch structure, via the Hill teaching.

It should be noted that claim 6 defines only a single limitation which lists the step of , "building up gas pressure local to a torch head of a plasma torch". Broadly interpreted, if the gas control device was remotely located, and not in the torch head or handle, remote activation of the gas control valve or solenoid would clearly have the effect of increasing gas pressure in the torch head. Of course there would be a delay of the gas reaching the head through the torch supply line, but the claim is silent to

Art Unit: 3742

preclusion of any delay, and local pressure would be built-up, even though remotely activated.

Applicant's terminal disclaimer has been approved and obviates the double patenting rejection set forth in the prior office action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

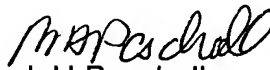
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H. Paschall whose telephone number is 571 272-4784. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Mark H Paschall
Primary Examiner
Art Unit 3742

Mp